

محمد امین حسینی

۸۰۱۰۲۴۷۴

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Multi cycle stack based بروزرسانی



لذت داده را در ساختار آرایه های

ADD 

000	Don't care
-----	------------

SUB 

001	Don't care
-----	------------

AND 

010	Don't care
-----	------------

NOT 

011	Don't care
-----	------------

PUSH 

100	Address
-----	---------

POP 

101	Address
-----	---------

JMP 

110	Address
-----	---------

JZ 

111	Address
-----	---------

OPC می باشد و ALU

ALU Control

00

+

01

-

10

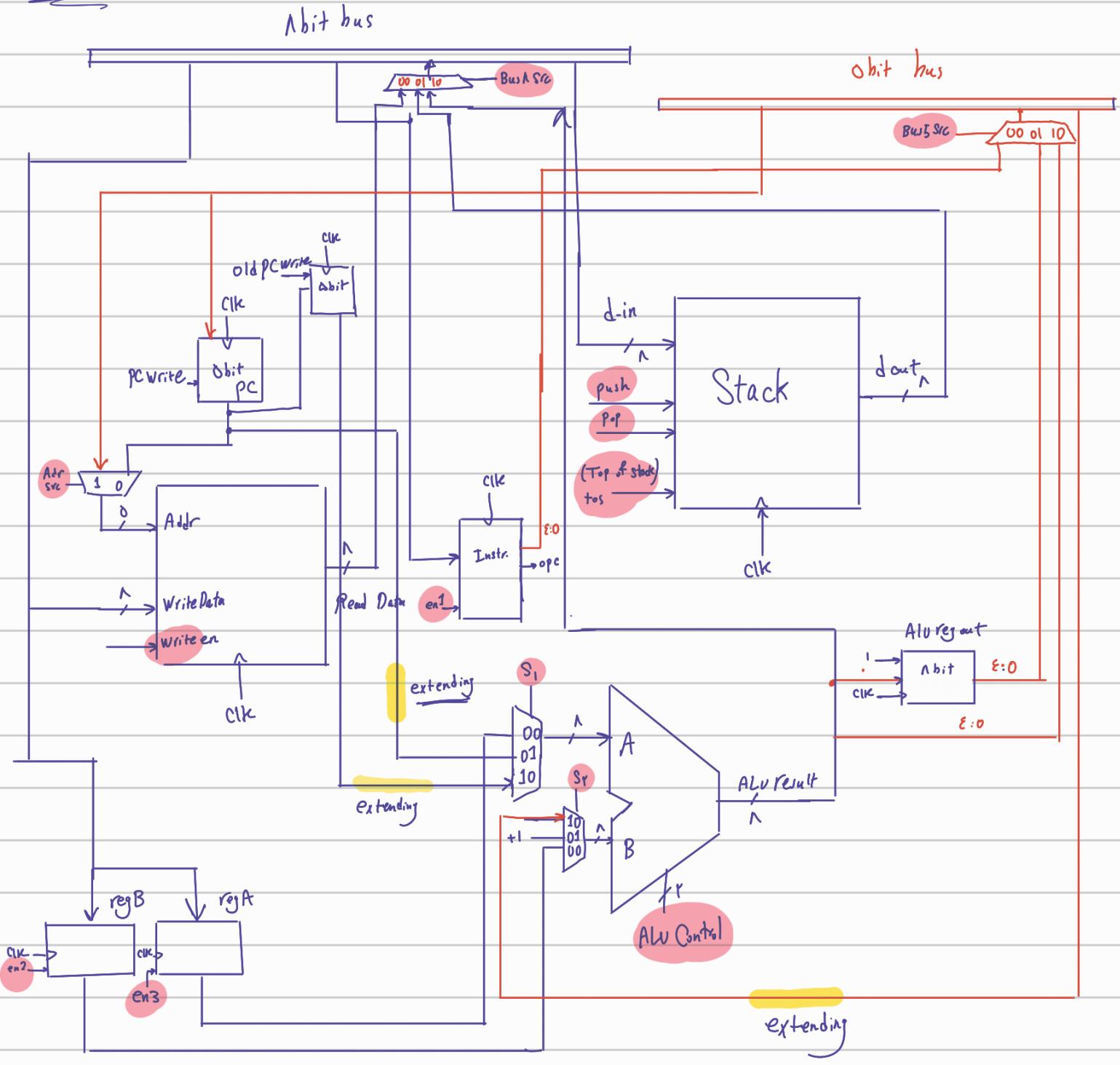
And

11

Not

ALU

## Data path



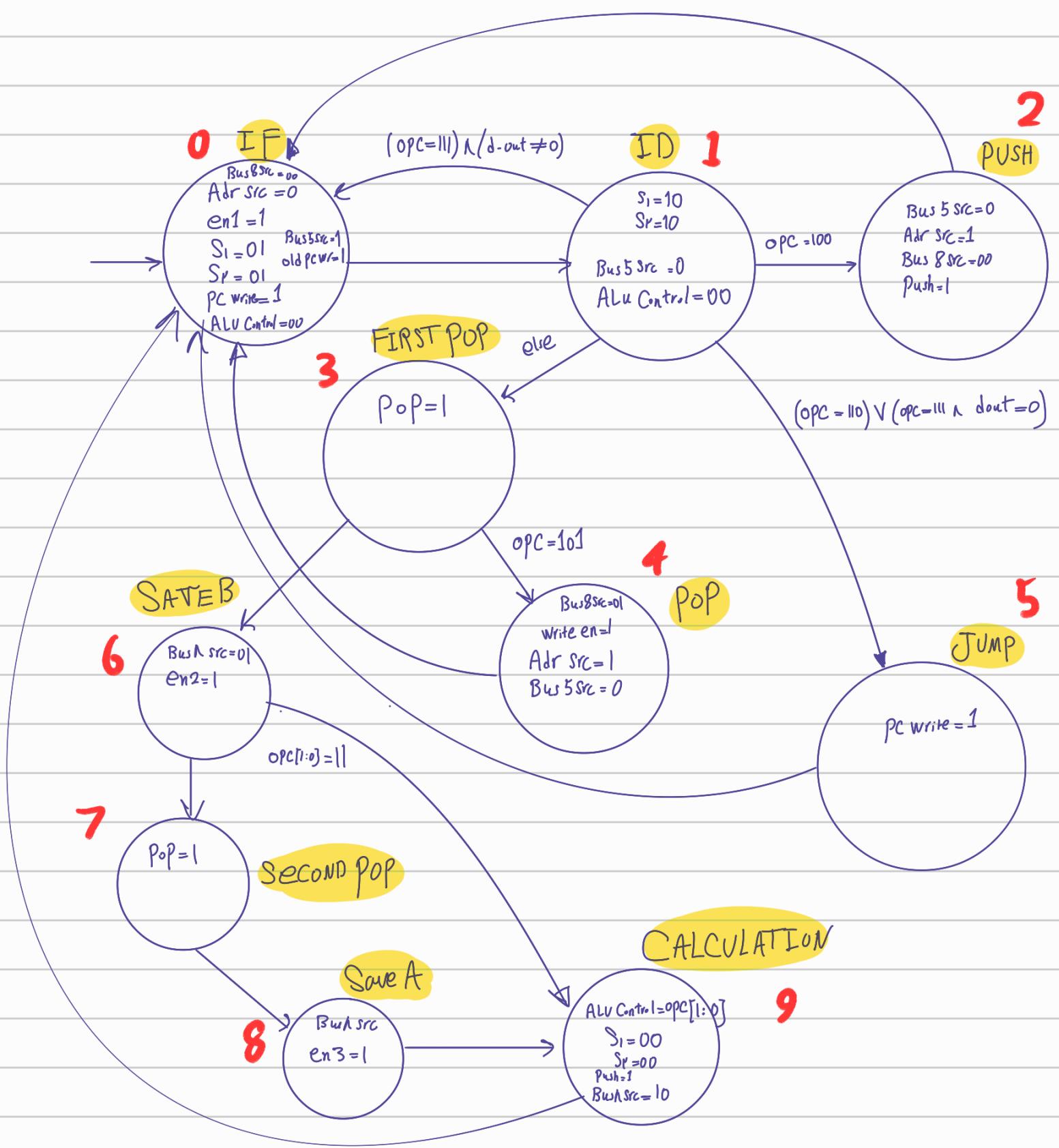
Data path

Controller

Bus A Src - Bus B Src - Old PC Write

tos - push-pop  
 en1 - en2 - en3 - written  
 pc wr - ALU Control - Adrsrc  
 S1 - S2  
 OPC , Dout

# Controller

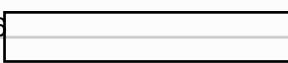


Memory file :

```
■ data_memory.mem
1 10011001
2 10011010
3 10011011
4 10011100
5 00010001
6 00010001
7 00010001
8 10000100
9 00111000
10 11000111
11 01001010
12 10100011
13 00011100
14 11010010
15 01011111
16 10010011
17 00100001
18 10110110
19 11111010
20 01000000
21 01111001
22 11101100
23 00001100
24 10101111
25 01011001
26 00000011
27 00011001
28 00101101
29 01000010
30 01001100
31 10011001
32 00010011
33
```

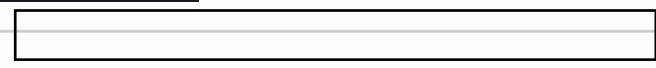


3,25,45,66



25 28

26 29



Simulation in model sim

